

REMARKS/ARGUMENTS

The present Amendment is in response to the Office Action having a mailing date of January 12, 2006. Claims 1-51 are pending in the present Application. Applicant has amended claims 1, 18, 34 and 35. Applicant has also canceled claims 3-4, 20-21, and 37-38. In addition, Applicant has added claims 52-54. Consequently, claims 1-2, 5-19-22-36, and 39-51 remain pending in the present Application.

Applicant has amended claims 1, 18, and 35 to incorporate the limitations of claims 3-4, 20-21, and 37-38, respectively. Applicant has also amended claim 1 to recite means for “visually” indicating in order to harmonize claim 1 with claims 18 and 35. Applicant has also amended claim 34 to correct a minor error. The amendment to claim 34 is seen by Applicant cosmetic, and as such, is not subject to the prosecution history estoppel imposed by Festo. For the record, Applicant points out that the Supreme Court in Festo noted that a cosmetic amendment would not narrow the patent’s scope and thus would not raise the estoppel bar. Applicant has also added claims 52-54. Support for new claims 52-54 can be found in FIGS. 3A and 3B, items 36 and 38. Accordingly, Applicant respectfully submits that no new matter is added.

In the above-identified Office Action, the Examiner rejected claims 1-3, 17-20, 34-37, and 51 under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 5,421,008 (Banning). The Examiner also rejected claims 4, 21, and 38 under 35 U.S.C. § 103 as being unpatentable over Banning in view of NPL: “Kaleidoquery: A Visual Query Language for Object Databases” (Murray). With respect to claims 4, 21, and 38, the Examiner noted that Banning “does not explicitly disclose a grouping method including indentation, adjacent positioning, or delineation by a symbol.” Consequently, the Examiner relied upon pages 251 and 253, paragraphs 46 and 61 of

Murray as teaching the positioning of the predicates adjacent to each other and delineating the group with parenthesis or an equivalent symbol.

Applicant respectfully traverses the Examiner's rejection. Applicant notes that claims 1, 18, and 35 have been amended to incorporate the limitations of claims 4, 20, and 38, respectively, and any intervening claims. Consequently, the Examiner's rejection with respect to both Banning and Murray is discussed below.

Claim 1 recites a query assist tool for assisting a user in creating and/or editing a query statement. The query assist tool has a user interface for building queries and a query model definition to populate a query model instance with elements of the created query statement. The user interface includes means for visually displaying a search condition of a query statement in a first display area, means for visually selecting two or more predicates of the displayed search condition for grouping, and means responsive to selection of the two or more predicates for visually indicating the grouping in the first display area. Claim 1 further recites that the means for visually indicating the grouping further comprises one or more of the group consisting of: indenting the grouped predicates relative to other predicates of the search condition; positioning the grouped predicates adjacent to each other; and delineating the group with parenthesis or an equivalent symbol. Thus, in the same "first display area" that a search condition is depicted, claim 1 recites that the grouping of predicates is visually depicted using specific mechanisms. Claims 18 and 35 recite an analogous method and article of manufacture comprising a computer program.

Using the query assist tool, method, or article of manufacture recited in claim 1, 18, or 35, the grouping of predicates is indicated in a display area that depicts the search condition. See item 36, FIGS. 3A and 3B of the present application. Note that in addition, the text of the query may

also be depicted. See item 38 in FIGS. 3A and 3B of the present application. As a result, a user may be more readily able to group, or nest, predicates in the desired manner. Specification, page 11, lines 8-16 and page 11, line 21-page 12, line 7.

Applicant agrees that Banning describes a system that employs a graphical query interface. Banning, Abstract. As a result, Banning is able to provide a relatively inexperienced user with the ability to create, modify, and execute queries. Banning, col. 5, lines 6-11. To do so, Banning creates a one-to-one mapping of parts of the query statement and visual objects. Banning, col. 5, lines 40-49. Further, Banning specifically discusses predicates. For example, see Banning, col. 9, lines 41-65. Although Banning functions well for its intended purpose, the predicates are depicted graphically in a manner that does not include any of indenting the grouped predicates relative to other predicates of the search condition, positioning the grouped predicates adjacent to each other, and delineating the group with parenthesis or an equivalent symbol. Instead, Banning appears to depict relationships between data using windows. See, for example, Banning, FIGS. 2, 4, and 5. Moreover, the Examiner has explicitly acknowledged that Banning does not explicitly disclose a grouping method including indentation, adjacent positioning, or delineation by a symbol. Thus, Banning fails to teach visually indicating the grouping of predicates using at least one of indenting the grouped predicates relative to other predicates of the search condition, positioning the grouped predicates adjacent to each other, and delineating the group with parenthesis or an equivalent symbol in the same display area that a search condition is depicted.

Murray describes “Kaleidoquery, a visual query language for object databases with the same expressive power as OQL [Object Query Language].” Murray, page 247, paragraph 1, lines 1-3. Consequently, Murray describes a language, Kaleidoquery, that is visual in nature. To provide support for the need for Kaleidoquery, Murray indicates that “textual query languages

[such as OQL] exhibit several problems to the database user including the need to know the database classes, attributes and relationship structure before writing a query, and also the problems of semantic and syntactic errors.” Murray, paragraph 3, 8-12. To address this need, Murray describes Kaleidoquery as visually depicting the query graphically as a filter flow. Murray, page 247-248, paragraphs 6-8. In order further explain Kaleidoquery, Murray provides examples of both the queries and their graphical depiction in Kaleidoquery. For example, see Figure 4 and page 249, paragraph 24 for the OQL (object query language) query and accompanying visualization in Kaleidoquery. Thus, the queries cited by the Examiner in pages 251 and 253, paragraphs 46 and 61, respectively, are merely the queries written in OQL. The visual depictions in Kaleidoquery corresponding to the paragraphs cited by the Examiner occur in Figures 12 and 16. Murray, page 251 paragraph 45, lines 8-9 and page 253, paragraph 60, lines 7-9. Thus, the predicates in Kaleidoquery appear as through the use of different windows, or visual objects, and connectors in the figures. See, for example, Figure 16 (items name, age, salary, and up arrows) and Figure 12 (arrows for employer and location = England). Although Murray graphically depicts queries, including predicates, Murray fails to teach or suggest indenting the grouped predicates relative to other predicates of the search condition; positioning the grouped predicates adjacent to each other; and delineating the group with parenthesis or an equivalent symbol in the same display area as the search condition is visually displayed. Furthermore, to the extent that Murray teaches the failings of textual based languages, Murray teaches away from visually indicating the grouping of predicates by indenting the grouped predicates relative to other predicates of the search condition, positioning the grouped predicates adjacent to each other, and/or delineating the group with parenthesis or an equivalent symbol.

Because both Banning and Murray fail to teach or suggest at least one of indenting the

grouped predicates relative to other predicates of the search condition, positioning the grouped predicates adjacent to each other, and delineating the group with parenthesis or an equivalent symbol, any combination of Banning and Murray fail to teach this feature. Stated differently, if the teachings of Murray were added to those of Banning, the combination might use the visual language (Kaleidoquery) of Murray in conjunction with the graphical user interface of Banning. However, the combination would still utilize the visualizations of Murray and/or of Banning to provide the depiction of queries or search conditions. As such, the combination may represent the relationships between predicates using the system of Banning and/or the arrows and windows in the visual language (Kaleidoquery) of Murray. However, the combination would still not indent the grouped predicates relative to other predicates of the search condition; position the grouped predicates adjacent to each other; or delineate the group with parenthesis or an equivalent symbol in the same display area as the search condition is visually displayed. Consequently, Banning in view of Murray fails to teach or suggest the query assist tool, method, or article of manufacture recited in claim 1, 18, or 35. Accordingly, Applicant respectfully submits that claims 1, 18, and 35 are allowable over the cited references.

Claims 2 and 17 depend upon independent claim 1. Claims 19 and 34 depend upon independent claim 18. Claims 36 and 51 depend upon independent claim 35. Consequently, the arguments herein apply with full force to claims 2, 17, 19, 34, 36, and 51. Accordingly, Applicant respectfully submits that claims 2, 17, 19, 34, 36, and 51 are allowable over the cited references.

In the above-identified Office action, the Examiner also rejection claims 9-14, 26-31, and 43-48 35 U.S.C. § 103 as being unpatentable over Banning in view of U.S. Patent Publication No. 2005/0004911 (Goldberg). In particular, the Examiner cited item 804 of Fig. 8 and paragraph 92 of Goldberg.

Applicant respectfully traverses the Examiner's rejection. Claims 9-14, 26-31, and 43-48 depend upon independent claims 1, 18, and 35, respectively. Consequently, the arguments herein with respect to Banning apply with full force to claims 9-14, 26-31, and 43-48. In particular, Banning fails to teach or suggest visually indicating the grouping of predicates using at least one of indenting the grouped predicates relative to other predicates of the search condition, positioning the grouped predicates adjacent to each other, and delineating the group with parenthesis or an equivalent symbol in the same display area as the search condition is visually displayed.

Goldberg describes a condition builder that utilizes a graphical representation of a search query. However, in order to build a query, the cited portion of Goldberg describes building a condition using objects represented by icons or tile boxes. Goldberg, paragraph 92. However, Applicant can find no mention of how predicates differentiating predicates in groups in the recited manner. More specifically, Applicant has found no mention in Goldberg of visually indicating the grouping of predicates by indenting the grouped predicates relative to other predicates of the search condition, positioning the grouped predicates adjacent to each other, or delineating the group with parenthesis or an equivalent symbol.

Because both Banning and Goldberg fail to teach or suggest visually indicating the grouping of predicates using at least one of indenting the grouped predicates relative to other predicates of the search condition, positioning the grouped predicates adjacent to each other, and delineating the group with parenthesis or an equivalent symbol in the same display area as the search condition is visually displayed, the combination also fails to teach such a feature. Stated differently, if the teachings of Goldberg were added to those of Banning, the combination might use tiles or icons to represent objects. However, the combination would still visually represent groupings of predicates in the recited manner. Because Banning in view of Goldberg fail to teach

or suggest visually indicating the grouping of predicates using at least one of indenting the grouped predicates relative to other predicates of the search condition, positioning the grouped predicates adjacent to each other, and delineating the group with parenthesis or an equivalent symbol, Applicant respectfully submits that claims 9-14, 26-31, and 43-48 are allowable over the cited references.

The Examiner also rejected claims 5-8, 22-25, and 39-42 35 U.S.C. § 103 as being unpatentable over Banning.

Applicant respectfully traverses the Examiner's rejection. Claims 5-8, 22-25, and 39-42 depend upon independent claims 1, 18, and 35, respectively. Consequently, the arguments herein with respect to Banning apply with full force to claims 5-8, 22-25, and 39-42. Accordingly, Applicant respectfully submits that claims 5-8, 22-25, and 39-42 are allowable over the cited references.

Applicant's attorney believes that this application is in condition for allowance. Should any unresolved issues remain, Examiner is invited to call Applicant's attorney at the telephone number indicated below.

Respectfully submitted,
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Date

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